



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,766	11/15/2001	Dan A. Steinberg	51950 (ACT-163)	7462

7590

04/06/2004

Jonathan D. Baskin
Edwards & Angell, LLP
PO BOX 9169
Boston, MA 02209

EXAMINER

LEE, JOHN D

ART UNIT	PAPER NUMBER
----------	--------------

2874

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/987,766	Applicant(s) STEINBERG ET AL.	
	Examiner John D. Lee	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-42 and 44-47 is/are pending in the application.
- 4a) Of the above claim(s) 40-42 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 6-34, 44, 46 and 47 is/are allowed.
- 6) ☒ Claim(s) 35-38 is/are rejected.
- 7) ☒ Claim(s) 39 and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's communication filed on January 6, 2004, has been carefully considered by the Examiner. The arguments advanced therein regarding the Tamura et al reference (Japanese Patent JP 11305151 A), considered together with the amendments made to the claims, are persuasive with respect to most of the pending claims and the previously applied rejections based thereupon are withdrawn. With respect to certain of the pending claims, however, Tamura et al is still deemed to be an appropriate reference and a new rejection is now set forth below. The previously applied 35 U.S.C. § 112, first paragraph, rejection has also been reconsidered and is withdrawn in view of applicant's arguments. This action is **not** made final.

The oath or declaration is defective. A new oath or declaration in compliance with 37 C.F.R. § 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not identify the citizenship of each inventor.

Please note that this requirement was made much earlier in the prosecution (paper number 9, mailed May 7, 2003) but was never complied with. **Correction is now required in response to this Office action.**

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 35-38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamura et al (Japanese Patent JP 11305151 A). Tamura et al discloses an optical assembly (see Figure 1 or Figure 3) which appears to be assembled by essentially the same steps as recited in these claims. Although the English language translated portions of Tamura et al do not make it absolutely clear, the steps of assembly are surmised to be as follows: a substrate **3** is provided with an upper surface and a cut-out portion, an optical array **4** terminating optical fibers **1** is positioned and secured on the right-hand side of the substrate upper surface, an imaging assembly **9** is provided and is lowered into the cut-out portion of the substrate, and the optical array **4** is then optically coupled to the imaging assembly **9** as a result of its being lowered into position. The last claimed step (the imaging assembly being *affixed* to the substrate and to the optical array) is not clearly indicated in Tamura et al, but such affixation would certainly have been found obvious by a person of ordinary skill in the art in order for there to be no variation in coupling efficiency during operation. As to claim 36, note that the interior of the optical array **4** cannot be seen in any of the drawings of Tamura et al. Since optical fibers which are placed on the left-hand side of the substrate upper surface, however, are clearly placed into V-grooves, it is likely that such V-grooves are also used in the interior of array **4**. The provision of V-grooves therein would certainly have been obvious. With respect to claim 37, note that imaging assembly **9** of Tamura et al is referred to as a lens array, and note also that there appears to be a one-to-one correspondence between the lenses of the array and the optical fibers of the optical array **4**. Regarding claim 38, the use of an adhesive for affixation is extremely old in the art and would clearly have been obvious.

Claims 1-3, 6-34, 40-42, 44, 46, and 47 are allowed. Tamura et al does not disclose or suggest the provision of an integrated optic chip wherein the optical array is optically coupled to the imaging assembly and the integrated optic chip. Tamura et al further does not disclose or suggest an integrated optic chip affixed to a side surface of the substrate. Tamura et al still further does not disclose or suggest an integrated optic chip mounted on the upper surface of the substrate with a waveguide mounted on the integrated optic chip. Finally, Tamura et al does not disclose or suggest the imaging assembly comprising at least one imaging device mounted on a chip.

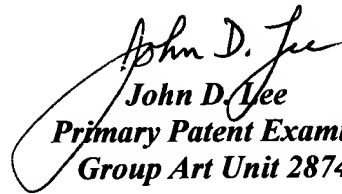
Claims 39 and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Tamura et al does not disclose or suggest the “ledges/notch” arrangement of claim 39. Tamura et al further does not disclose or suggest the provision of an integrated optic chip optically coupled to the imaging assembly.

Applicant’s arguments with respect to claims 35-38 have been considered but are moot in view of the new grounds of rejection.

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (571) 272-2351. The Examiner’s normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562, to the technical support staff supervisor (Team 8) at telephone number (571) 272-1564, or

Art Unit: 2874

to the Technology Center 2800 Customer Service Office at telephone number (571) 272-1626.


John D. Lee
Primary Patent Examiner
Group Art Unit 2874